
Wellbeing and Retention: A Senior Secondary Student Perspective

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Abstract

Non-completion of senior secondary schooling continues to be a matter of concern for policy makers and practitioners in Australia today. Despite the efforts of governments to improve participation and retention rates, 30% of students drop out of school before completing Year 12. Further, some students remain at school, just biding their time until graduation. Within this context, we investigate whether the wellbeing of the students is a key factor in supporting senior students in deciding to continue at school.

The article reports on the first phase of a two-year study of factors impacting on quality retention and participation of 250 Year 11 students from two school communities. This initial phase focuses on the senior students' perspective of their wellbeing in Year 11, and includes our development of a suite of scales to measure the impact of students' social connectedness and academic engagement on academic achievement and retention. Data from the survey of students are enriched through student focus groups.

The article identifies critical dimensions of what students regard as a healthy senior school culture; that is, a culture conducive to a positive and productive experience in terms of their retention, participation and achievement. Implications for school and system policy and governance are proposed.

Introduction

Concern related to increasing the length of time students remain at school is a global issue. A recent report into school retention (White, 2003) summarised the position in the following way:

Compared with young people who complete *secondary schooling*, those who don't finish *secondary schooling*, are more likely to experience

extended periods of unemployment, obtain low-paid and low-skilled jobs and have difficulty obtaining relatively stable jobs: they are more likely to earn less, rely on government assistance and not actively participate in community life (p. 4).

This not only raises the question of how to improve retention and participation rates for senior secondary students, but, more importantly, how to improve the quality of the retention experience itself. Legislation alone will not persuade students to remain at school. Although there has been a recent shift in conceptualisation of “retention” to embrace school-to-work and school-to-training transitions, the challenge remains in providing a positive, purposeful and productive experience for students that helps them attain the self-esteem, qualification and experiences needed to reach their goals. Further, the wellbeing of the students within this culture is critical.

Within Australia, the secondary school completion picture mirrors the OECD data, with 30% of students dropping out of school before completing 12 years of schooling (Lamb, Walstab, Teese, Vickers, & Rumberger, 2004), (Organisation for Economic Cooperation Development, 2005), Table C1.3). Variations in retention data across the Australian states are influenced by factors such as the proportion of Indigenous students, the remoteness of secondary schools from key metropolitan education districts, access to post compulsory education within the local school, and access to Technical And Further Education colleges and workplace learning opportunities. The impact of these factors on participation rates of young people in Australia are documented by Fullarton, Walker, Ainley and Hillman (2003). The authors found that participation rates in the final year of secondary schooling varied according to the following factors:

- Gender – girls were more likely to complete than boys by 10 percentage points;
- Socio-economic background – students from low SES background were less likely to complete by 15 percentage points;
- Cultural background – students from a non-English speaking background were less likely to complete by 8 percentage points;
- Earlier school achievement – low achieving students are less likely to complete by 31 percentage points; and
- School sector and location – students from government schools (by 8 percentage points) and non-metropolitan schools (by 14 percentage points) were less likely to complete their final year of schooling. (Fullarton et al., 2003)

A growing body of research on school retention seeks institutional, socio-economic, and personal factors that may impact on the completion of 12 years of schooling. Many of these studies identify students most at risk of leaving school without certification, or adequate educational or training requirements for on-going employment (Beavis, Curtis, & Curtis, 2005b; Gray & Beresford, 2002; Lamb et al., 2004; Munns & McFadden, 2000; Ross & Gray, 2005; Wyn, Stokes, & Tyler, 2004). However, little research is available to explain the retention of students from their point of view.

Voelkel (1997) has examined two key concepts underpinning the establishment and fostering of participation and retention: student identification with school through a sense of belonging and valuing of school and related outcomes, and others have looked at trust relationships within the school (Mitchell & Forsyth, 2004). Research has established the effect of student perceptions of their learning environment, and especially their teachers, on achievement and learning (Darling-Hammond, 2005; Fisher & Khine, 2006; Fraser, 2007; Hattie, 2005). Although this growing body of research is shaping an understanding of the influence of the learning environment on students who leave school before completion, very few studies focus on understanding the perspectives and learning needs of those students who choose to complete their final two years of schooling.

The missing voice in the current debate related to retention is that of the senior student. Without an insight into student experience of the senior school learning environment, school cultures, systems and course are limited in targeting offerings to provide positive experiences of participation and retention for their senior students. After a decade of researching the impact of early school leaving, we took up this challenge and undertook a two-year study tracking all Year 11 students in two schools through to their completion of Year 12. This allowed us to use repeated surveys and focus groups over an extended period of time to get to know these students. Through this, we were able to develop a theoretical and practical understanding, from the students' perspective, of the impact of students' wellbeing within the senior school learning environment on their retention and achievement.

This article draws on the first year of our research of the senior secondary students' perspective of their wellbeing in the Year 11 school culture, and includes our development of a suite of scales to measure the impact of students' social connectedness and academic engagement on academic achievement and retention. Data from the survey of students are enriched through student focus groups.

We based the paper on three premises:

- That students' perceptions of the school culture and the extent to which it satisfies their social, academic and aspirational needs are indicators of the wellbeing of senior school students
- That the level of engagement of senior school students influences the quality of their participation and retention
- That there are critical dimensions of a supportive school culture conducive to quality retention and participation.

Wellbeing in Senior School

Research indicates there are three key factors influencing students' decisions to become non-completers and leave school before graduation (Alexander, Entwisle, & Olson, 2001; Lamb et al., 2004; Smyth & Hattam, 2004; Teese & Polesel, 2003): (i) work and employment opportunities, (ii) negative and unfulfilling school experiences, and (iii) severe home and welfare problems.

These three factors interact with each other and, combined with gender and ethnicity influences, affect students' decisions to leave school early. Research shows students most likely to succumb to low level, temporary employment opportunities, courses leading to limited opportunities for on-going education, training or employment, failed transitions and poor quality retention experiences are those who are already struggling to deal with disadvantage (Beavis et al., 2005b; Lamb et al., 2004; Ross & Gray, 2005; Thomson, 2005). Early studies found students least likely to succeed were disaffected by their experience of school, and appeared to have less realistic aspirations than their not-at-risk peers (Bradley, 1991).

As foreshadowed above, this paper focuses on the second of these three factors: the capacity for the school experience to impact on students' active participation and retention in the senior secondary years. This is the one factor that education systems can influence (Hemmings et al., 1998).

Identification with the school community

The relationship between students' failure to identify with their school community and their academic achievement has been well established (Finn, 1989; Finn & Rock, 1997; Fordham, 1996). Such a sense of identification involves for the student a sense of belonging and this in turn entails a valuing of school and school-related outcomes. Recent research has expanded the concept of student "identification" with their school to include trust relationships within the school (Mitchell & Forsyth, 2004). Martin

(2006) further expands the importance of the concept of “belonging” in the student retention agenda by showing that students who believe their teachers care about them are more likely to believe they learn more.

There is no question that the relationship between students and their teachers is critical in developing and supporting student learning. Russell (2002) emphasises this relationship by claiming:

The research is clear, teachers matter and good relationships with teachers are a key factor in keeping young people connected to school and learning. The more students like their teachers and feel their teachers care about them, the more they enjoy school and find it interesting. (Russell, 2002, p.25)

Further, the strength of the relationship between students and teachers within the broader learning environment is central to developing the wellbeing of students becoming acknowledged as critical to their learning potential. Audas and Williams (2001) describe such a learning environment as:

central to effective learning and the wellbeing of young people. Engagement – the extent to which young people identify with their school and derive a sense of wellbeing from their learning – is a crucial determinant of success in school. (Audas & Williams, 2001, p.xx)

The social and emotional context

Contemporary perspectives on student engagement define it as students’ involvement with activities and conditions likely to generate high quality learning outcomes. Martin (2006) conceptualizes student motivation and engagement:

Motivation and engagement can be conceptualized as students’ energy and drive to engage, learn, work effectively, and achieve to their potential at school and the behaviours that follow from this energy and drive. (2006, p.73)

The social and emotional context for learning is considered critical in optimizing student engagement with their learning. Fredericks, Blumenfeld, and Paris (2004) make this explicit:

Engagement is associated with positive academic outcomes, including achievement and persistence in school; and it is higher in classrooms with supportive teachers and peers, challenging and authentic tasks, opportunities for choice, and sufficient structure. (p. 87)

In his study of early school leaving, Hodgson (2007) found that cultures and structures in schools support relationships and experiences impacting on a student's decision to stay or go. This relationship with educators could be defined by:

The capacity (or not) to feel included, responded to, to have one's particular learning and educational needs understood and respectfully responded to, and to have a say in one's educational experiences. (p. 59)

This paper argues that such a relationship is one indicator of the student's wellbeing within a school culture. It is also argued that establishing such a school culture is critical to school policies and practices intent on maximising participation and retention of senior students. For the purposes of this paper, students' sense of wellbeing within their senior secondary school learning environment is related to the extent to which it satisfies their social, academic and aspirational needs.

However, it seems that research to date has not explored the specific features of the senior school culture that impact on students' perceptions of a positive, purposeful and productive experience. Recent research provides some insight into the capacity for positive and timely intervention through enhanced school commitment and needs accommodation to help young people in their senior years of schooling cope with the pressures from both academic and social environments to optimise a positive and productive outcome (Hemmings, et al., 1998). It is timely and important to build an understanding of school cultures, systems and course offerings that maximise positive retention and participation. This study was designed to explore the relationship between students' sense of wellbeing within their Year 11 school learning environment and their engagement in education and training.

It was hoped this would lead to a better understanding of the ways to address the current participation slippage in Years 11 and 12. To this end, the study posed the following questions: Is it possible to identify groups of students who are not experiencing positive retention and participation in Year 11? What is the relationship between students' experiences of retention and participation and their academic achievement? Which defining factors of the senior school learning environment do students perceive to be critical to their social and academic wellbeing? How do these factors impact on students' critical decision making processes in relation to retention and participation?

Methodology

We took a mixed methods approach to explore this relationship, taking the position that this form of research is a unique design with distinct advantages for a single study

such as ours. To this end we collected “mixed” forms of data, including a quantitative survey and qualitative open-ended interview data (Morse, 2008) In terms of procedure, our quantitative and qualitative methods were sequential, with our qualitative methods used to help explain quantitative findings (Creswell, Plano Clark, Gutmann & Hanson, 2008, p.167). Throughout all stages of conceptualisation, the two “methods” were equally respected in terms of rigour and integrity, as we considered both forms of data equally important in ascertaining the student perspective of factors impacting on their wellbeing in the learning environment.

Quantitative data were collected to establish relationships and patterns of social connectedness and academic engagement in programs offered in senior schools. Qualitative data were employed to gain an understanding of the student voice –particularly their critical decision-making on subject and course choice and whether to leave school or stay for Year 12. Quantitative data were analysed with one way ANOVA and Tukey’s Post Hoc Tests using SPSS Version 15. NVivo7 was used to analyse the qualitative data through axial and selective coding mechanisms. Axial coding allowed us to review and explore preliminary concepts, and highlight connections between identified key concepts (Sarantankos, 1993). This level of analysis was followed through with selective coding to examine cases illustrating major themes. These two levels of coding also provided the structure for analysis of features of a school culture conducive to wellbeing and retention as outlined in Table 6.

Two schools in metropolitan Western Australia were selected for this study because of their reputation of excellence in providing flexible and rigorous programs for a complex group of Year 11 and 12 students. Both government schools are in the same education district and draw from the same population. In 2005 both schools had above average participation rates and transition to on-going education or training for a predominantly non-tertiary bound cohort; including a small TEE group. The participating schools were:

- A Community College – with students in Years 8-12; and
- A Senior College – with students in Years 11-12.

Selection on this basis allowed involvement of students of similar socio economic status, same school district and experiencing a supportive school culture. Although it is not possible to claim “control” of these variables in this study, maximum consideration was given to drawing a sample of students with similar home and school experiences in a quasi-experimental study of this design.

The participants

We used a whole-population sampling across the two schools, with 255 Year 11 students (133 girls and 122 boys) agreeing to complete the survey. The overall response

rate was very high: 93% of Year 11 students enrolled in the schools at that time. The profile of the students was representative of most low SES metropolitan schools: 7% of the students were Indigenous; 13% were born in another country and spoke a language other than English at home; 56% of mothers of the students were in paid employment, along with 68% of their fathers; and 43% of participating students were from single parent homes.

Students who participated in the study were enrolled in one of five key programs within their school:

- Mainstream – mostly tertiary entrance subjects ($n=183$);
- Vocational and Educational Training ($n=11$);
- Industry Access – wholly school assessed course, with two days a week based in an industry placement ($n=38$);
- Fast track – return to school for students who did not complete Year 9 or 10 ($n=19$); and
- Education Support ($n=4$).

Data collection

In partnership with the leadership teams in both schools, three key forms of data were collected.

Student survey – All Year 11 students in both schools completed a survey in August 2006. Surveys were administered by the research assistant, with the help of the School Leadership team in each school.

Student Focus Groups – Student focus groups were conducted by the research assistant in September-October with a stratified sample of 10% of those Year 11 students who took part in the survey.

School-based data are used to provide a broad context for the two school communities. Data included students' end-of-Year 11 academic achievement data, and their retention status in February 2007. Interviews were conducted with the leadership team and key Year 11 program and curriculum leaders in each school.

Indicators of a Healthy School Culture

Consistent with recent research on retention and participation outlined above, two key constructs on the wellbeing of a student learning environment formed the basis of our instrument development: social connectedness and academic engagement.

The survey instrument was constructed on the basis of measuring two constructs: social connectedness and academic engagement. Two new scales measured social connectedness and four scales measured academic engagement (three new scales and one with permission). The instrument was thoroughly pre-tested on 100 Year 11 students from two different schools, including two trial focus groups each with five students. We shared Punch's (1998, p. 97) position that short rating scales, tailor-made to the purpose and context, consistent with related theoretical literature, and confirmed by accompanied qualitative data can produce effective data which will add to the precision and value of the research.

The scales we developed within the survey instrument measured students' perceptions of their support for studies and school belonging (social connectedness); and their subject satisfaction, involvement with studies, academic confidence and self-efficacy (academic engagement). Students responded using five-point Likert scales, which were used to generate mean scale scores. The instrument was structured on the basis of these two constructs, as outlined below.

(i) Social connectedness

Support for studies – a five-item scale measuring the perceived level of support given by family, friends, teachers and coordinators to remain at school and complete their schooling (Very Low to Very High). An example of an item is “What level of support are you given by your family to stay at school and complete your studies?” (Cronbach alpha reliability coefficient, $\alpha=.7$)

School belonging – a six-item scale measuring students' sense of belonging to a Year 11 school community by inviting responses to statements about their enjoyment and engagement in the school learning community (Strongly Disagree to Strongly Agree). For example, “My school is a place where I feel I belong”. (Cronbach alpha reliability coefficient, $\alpha=.8$)

(ii) Academic engagement

Subject satisfaction – a six-item scale measuring student satisfaction with each of the subjects they are currently studying (Very Unhappy to Very Happy). Each item asked, “How happy are you with your choice of (particular subject)?” (Cronbach alpha reliability coefficient, $\alpha=.6$)

Involvement with studies – a nine-item scale measuring how often statements about involvement in studies were considered true for the student (Never to Almost Always). One item within this scale was used with the permission of Andrew Martin (2006). Student responses indicated a strong sense of involvement in their current studies. For example, “I’ll keep working at difficult school work until I think I’ve worked it out”. (Cronbach alpha reliability coefficient, $\alpha=.9$)

Academic confidence¹ – a four-item scale measuring students’ level of confidence in managing their school studies by inviting responses to statements about engaging in their schoolwork (Strongly Disagree to Strongly Agree). An example, “I can do my homework even when it is difficult”. (Cronbach alpha reliability coefficient, $\alpha=.8$)

Self-efficacy – a succinct, easy-to-read three-item scale measuring students’ sense of academic success in their studies by inviting responses to statements about their enjoyment and success with their studies (Strongly Disagree to Strongly Agree). For example, “I am successful in my studies this semester”. (Cronbach alpha reliability coefficient, $\alpha=.8$)

The bi-variate correlations of all scales were calculated and, as illustrated in Table 1 below, there were significant correlations between all scales within and between the two constructs.

	School belonging	Support for studies	Subject satisfaction	Involvement with studies	Confidence with school work	Self-efficacy
School belonging	1.00 (254)	.43** (254)	.41** (247)	.48** (253)	.37** (254)	.54** (253)
Support for studies	.43** (254)	1.00 (254)	.25** (247)	.31** (253)	.140* (254)	.29** (253)
Subject satisfaction	.41** (247)	.25** (247)	1.00 (248)	.42** (247)	.26** (247)	.51** (246)
Involvement with studies	.48** (253)	.31** (253)	.42** (247)	1.00 (254)	.46** (253)	.64** (252)
Confidence with school work	.37** (254)	.14* (254)	.26** (247)	.46** (253)	1.00 (254)	.52** (253)
Self-efficacy	.54** (253)	.29** (253)	.51** (246)	.64** (252)	.52** (253)	1.00 (253)

Note: All scores use a 5-point Likert scale. Valid N shown in parenthesis.

*** $p < .01$ (2-tailed). * $p < .05$ (2-tailed).*

Table 1: Retention Study Scale Score Correlations

Students’ Academic Achievement

We further considered students in terms of actual academic achievement, according to their official end of Year 11 academic results as reported to the WA Curriculum Council.

School-based data allowed us to group students into four broad academic achievement categories as outlined below:

- *Students who were doing well in most subjects:* Students who achieved any combination of As and Bs for at least 75% of their course requirements.
- *Students who were managing their course requirements:* Students who achieved Cs for at least 75% of their course requirements.
- *Students who were struggling in most areas:* Students who achieved any combination of Ds or Es for at least 75% of their course requirements.
- *Students who withdrew from their course:* Students who left school during the year without completing the course requirements.

We devised these four categories to indicate students' levels of success in Year 11 studies, regardless of program. The categories accommodated academic expectations and the variation in subjects students were enrolled in. The opportunity to explore student perceptions across all programs and course offerings within a senior school community is rare, as most of the research related to this area draws on standardised tests rather than course outcomes. An analysis of the scale scores of these categories of academic achievement, along with data related to their aspirations, built a rich profile of the students and their perceptions of their learning environment. The characteristics are summarised in Table 2 below.

	Withdrawn (n=29)	Struggling (n=28)	Coping (n=109)	Doing well (n=89)	p	Overall mean of Year 11 (N=254)
Social connectedness						
Support	3.74	3.47	3.67	3.79	.225	3.72
Belonging	3.80 ^{abc}	3.39 ^a	3.86 ^{bc}	3.97 ^{ac}	.000*	3.84
Academic engagement						
Subject satisfaction	3.75	3.81	3.91	4.00	.235	3.91
Involvement	3.36	3.31 ^a	3.57 ^a	3.87 ^b	.000*	3.64
Confidence	3.42 ^{ab}	3.06	3.60	3.75	.000*	3.57
Self-efficacy	3.26 ^{ab}	3.10 ^a	3.58 ^a	3.96 ^c	.000*	3.62

Note: Means followed by the same superscript letter do not differ significantly according to Tukey's HSD Post Hoc Test

*Significant for One-way ANOVA at $p < .001$

Table 2: Mean Scale Scores by Academic Results for the Whole Cohort

As can be seen from the patterns of increasing scale scores according to academic outcomes, there was a strong relationship between students' identity with their school learning environment and their academic achievement. Moreover, all scale scores except subject satisfaction were significantly lower for students struggling in most areas of their course. Student responses to the scale items about subject satisfaction showed that "satisfaction" often included acknowledgement that the subject was necessary for their aspired post-school plans and was available at their school. This explains why students who were not coping in most aspects of their course could still acknowledge their satisfaction with their chosen subjects. The scale score was found to have a predictive capacity in terms of academic achievement and attrition. There is strong evidence to indicate that the more often a student achieves scale scores of less than 3.5, the less likely they were to cope with the academic requirements of their course.

Characteristics of students who were doing well in most subjects

Students whose academic achievement indicated that they were doing well in most of their subjects also had a consistently high score on all six scales compared to the other groups (all mean scores > 3.75). Further, this group of students indicated high levels of self-efficacy, satisfaction with their subject selection and belonging to the school community.

Characteristics of students who were coping with their course

Students whose academic achievement indicated that they were passing (i.e. achieving a "C" grade) in at least 75% of their course requirements, but not excelling, presented scale scores below 4.00 on all six scales. Although they were generally satisfied with their subject selection and felt they belonged to the school community, these students had a reduced sense of involvement in their studies despite reporting confidence in their academic potential and self-efficacy.

Characteristics of students who were struggling with their course

Of particular concern are the group of students who were struggling in most areas of their course requirements. Low scale scores were characteristic for these students, with all measures of academic engagement also below scale 3.50. However, generally these students had some sense of social connectedness with the school learning environment. They reported being satisfied with their subject selection, despite a reduced sense of across-the-board support for their decision to stay at school. The students in this group were the least likely of all groups to have a sense of belonging to the school community. Of greatest concern is the low level of confidence with school work and self-efficacy reported by these students.

Characteristics of students who withdrew from their course

Of the 11% of students who left before completing Year 11, feedback from School Coordinators indicates that the leaving students fell into two broad categories:

- those who had left to take up job opportunities or apprenticeships. These were usually students with high scale scores and coping very well with their non-tertiary entrance exam bound program; and
- those who were faced with severe home and welfare problems. Unfortunately, these were usually the students who left school before Year 10 for exactly the same reasons. Many of these students were making excellent progress with their course, and were socially connected with the school community and engaged in their learning. It is hoped that the positive experience of their senior schooling would support them with second-chance education opportunities.

The Impact of Wellbeing on Retention

Consistent with the literature, a high proportion (73%) of the Year 11 students in our study returned to commence their studies in Year 12. As outlined in Table 3 below, those Year 11 students who were managing their course were most likely to leave after completing Year 11 (23%). To understand these data in context, many of these students were enrolled in either a VET course or an Industry Access course, both aimed at providing the best possible links to opportunities for on-going training and employment. As outlined earlier, generally these students had experienced a positive sense of wellbeing in their learning environment. Hence, many of these students who were coping with their course but left before beginning Year 12 had positive education, training and employment outcomes.

	Left before completing Year 11	Struggling in most areas	Managing their course	Doing well in most areas	All students
Returned	NA	35 (83%)	83 (76%)	67 (89%)	185 (73%)
Left	29 (11%)	7(16%)	26 (23%)	8 (10%)	70 (27%)
Total (2006)	29	42 (100%)	109 (100%)	75 (100%)	255 (100%)

Table 3: Number of Students to Return in 2007 by Academic Achievement

The challenge facing schools and systems is to provide appropriate course structures and curriculum for the strong proportion (83%) of students who struggled in most areas of their course in Year 11 and who returned in 2007 to continue their studies in Year 12. As outlined earlier, we found that these students had a limited sense of being socially connected to their school community, had a limited sense of being supported within their learning environment, suffered with a low sense of self-efficacy and had limited confidence in their capacity to cope with their school studies.

Consistent with the argument we posed that students' sense of wellbeing within the school learning environment was a key factor in keeping young people connected to school and learning, *t*-tests showed highly significant differences ($p < 0.001$) between students who decided to leave school after completing Year 11 in terms of involvement with their studies (those who left, mean=3.6; those who returned, mean=3.7) and confidence with their school work (those who left, mean=3.5; those who returned, mean=3.7).

The Gender Factor

In a climate of high employment in Western Australia due to the mineral boom, and the newly legislated requirement that students will complete 12 Years of education or training, it is not surprising to find high retention for those students who have not been able to find alternative training or appropriate employment. Nor is it surprising to find that the confident and capable boys are taking advantage of the increased opportunities for industry-based training and employment opportunities. An unanticipated finding in the study was the different patterns of response to the survey by male and female senior students. In response to the gender issues identified in the literature outlined earlier, the data was further examined in terms of gender. Of particular note is the highly significant ($p < 0.001$) difference between the confidence levels of girls who left (mean=3.3) and boys who left (mean=3.7). Further, there was a highly significant ($p < 0.001$) difference between the confidence levels of girls who left (mean=3.3) and girls who stayed (mean=3.7). Quite clearly, the least confident students (mostly girls) chose not to attempt Year 12.

There is a growing body of literature focusing on gender differences in retention and learning styles. Studies on non-completion of schooling show a marked gender difference, with higher rates of non-completion among boys. One reason advanced is that girls outperform boys in particular subjects (Arnot, Gray, James, Ruddock, & Duveen, 1998; Sukhnandan, 1999). A dramatic decline in the teenage labour market pre-2006 saw a sharp fall from 65% employment in 1966 to 20% by the mid-1990s. Females fared worse than males (Lewis & Koshy, 1999; Wooden, 1996). Despite the current surge in employment opportunities, girls in our study reported finding it harder to get traineeships, appropriate workplace learning opportunities, or employment involving on-going training aligned to their aspirations than the boys. One Year 11 girl described this as:

The boom and job market have let us down (*Industry access student*)

Our data indicated that a lower proportion of girls than boys returned to their studies (49% of girls returned; 56% of boys returned). Qualitative feedback and retention data

showed that first generation Year 11 girls were more likely than boys to have family expectations and commitments to a support role in the household (including a financial support role), often interrupting their study plans.

Of particular concern when considering the provision of a quality retention experience for students who in previous years have not remained at school, is the new understanding that the strongest influence on non-continuation of any further education or training are students who participate in service vocational studies in their final years at school (clerical, mixed-eclectic, visual and performing arts subjects). This is consistent with the theoretical position that students aspire according to gender, perceived ability and an understanding of the world of work (Beavis et al., 2005a; Gottfredson, 2002; Lamb et al., 2004). Most students who leave school after completing the second last year of senior secondary schooling “move into low-level positions, primarily in the areas of retail trades, accommodation, cafes and restaurants and manufacturing” (Thomson, 2005, p. 58). The students most likely to have poor retention outcomes such as unemployment, part-time work and not in the labour force are females from lower achievement levels who leave school straight after completing the second last year of their schooling – without graduation (Thomson).

This phenomenon is reflected in our data outlined in Table 4 below, indicating that the girls who were doing well in most areas of their course were significantly less satisfied with their subject selection/choices than the boys despite a stronger sense of support in their endeavours to remain at school. Our data showed that the subjects girls were least satisfied with were those related to work placement. Qualitative data allowed us to link this dissatisfaction with the lack of alignment of girls’ post-school aspirations with their experience of the world of work provided through school.

	Male (N=41)	Female (N=48)	p
Social Connectedness			
Support	3.6	3.9	.049*
Belonging	4.0	4.0	.145
Academic Engagement			
Subject Satisfaction	4.2	3.9	.026*
Involvement	3.9	3.9	.067
Confidence	3.9	3.6	.041*
Self-efficacy	4.1	3.8	.084

Note: *Significant difference between Male and Female according to Independent Samples t-test

Table 4: Mean Scale Scores of Students Doing Well by Gender

It is interesting to note that despite their strong sense of social connectedness to the school community and successful involvement in their studies, the girls were significantly less confident than the boys in their ability to manage their school work.

In examining the underlying responses leading to the statistically significant difference in the academic confidence of the girls, it was interesting to see that boys consistently made a stronger statement of confidence in their capacity to work hard and deal with challenging schoolwork than the girls. For example, there was a ten percentage point difference in the boys' response to the statement related to belief in getting good results (86% boys; 76% girls). More girls were undecided, or disagreed, to each statement related to coping academically.

There is a need for further research to determine the exact nature of the apparent gender differences in academic confidence, self-efficacy and subject satisfaction. It is especially important to fully explore the link between girl's academic confidence, their unhappiness with subject selections and the potential and limitations of workplace learning opportunities to complement girls' aspirations. It may well be that while focussing on addressing learning and behavioural differences for boys, we have unwittingly taken our eye off the challenges and opportunities for girls, especially for low SES senior students.

Critical dimensions of a supportive school culture

Clearly, a supportive school culture in which students feel respected is essential for senior students' wellbeing and success. Consistent with this position, students in our study indicted their strong sense of being supported within their school learning environment. For example,

- 76% of the students identified their subject teachers as the key form of support in continuing their final years of study (33% indicated very high levels of support, and only 4% indicated a low level of support);
- 68% of the students indicated that their parents provided high levels of support for their continued studies (40% indicated very high support);
- Only 48% of the students indicated that their friends were key to supporting their continued studies.

The qualitative data provided evidence that the factors identified by students as critical to their retention and participation extended beyond the broad levels of support identified above. Students' discussion in the focus groups gave greater insight into their positive sense of social connectedness with their learning community, and, in particular, how this connectedness translated to engagement with their studies. Three key factors reflecting student perceptions of a supportive senior culture emerged through axial and selective coding in the NVivo7 analysis of the focus group data: respect, relationship and responsibility. As illustrated in the quotes below, the

students clearly articulated these three critical dimensions of a supportive school culture as broad, inter-related categories:

Respect

Mutual respect was the key factor identified by students as critical to a school culture in which they felt confident to be “brave” and manage the risk-taking they acknowledged as essential for tackling the courses and subjects aligned to their post-school aspirations. This was even more important for students returning to learning after unsuccessful middle years school experiences. The “mutual” component of this category was seen as essential to students’ sense of belonging to a learning community – students wanted to be respected for their efforts, their beliefs and values, and their background. Students were apprehensive about teacher judgements of their literacy and general learning challenges, their low SES home-life, their non-tertiary aspirations and their socialisation patterns. Teachers who gained “respect” were able to mediate their personal life and learning experiences with the challenges facing their students, and develop a young adult learning environment.

A further characteristic of mutual respect was the curriculum factor, that is, the relevance, authenticity, choice, appropriateness and rigour of the curriculum offered in each program. For students, the nature of the curriculum offered was the quickest way to gauge a sense of the school’s respect for their learning needs. In our study, there were explicit links between student engagement, supportive environments and appropriate and challenging curriculum. Further, the student focus group data highlighted the impact of these factors on critical decision-making about retention and participation.

The curriculum factor emerged as having the potential to impact on student engagement and retention in three key ways:

- Authenticity, challenge and alignment to aspirations were the key triggers for engagement and confidence in continued learning and training;
- Students were acutely aware of any “dumbing down” of curriculum or pedagogy, and perceived this as clear lack of respect for their ability. In the same way, students were very proud of being selected for entry to either the Industry Access and VET program – the pride stimulating a resilience for expected academic rigour;
- Unless the appropriateness of the curriculum was transparent, students had little incentive to continue their school studies.

The following comments made by students illustrate the importance of a culture of respect:

I think the amount of responsibility they give us, they treat us like adults and we are expected to take that on board and I think that enhances the whole learning environment and we are more motivated to learn because they are giving us that kind of level of respect.
(*Mainstream student*)

They treat you equally here . . . like when you work out of school you're treated equally, but at most high schools they talk down to you. You're a student, not an equal.

We feel accepted here. (*Fast Track students*)

We had to be interviewed to get into this course. (*Industry Access student*)

Not many rules in the program, just common sense rules, such as respect for each other and the teacher. (*Fast Track student*)

Each teacher will help you, regardless of what class they teach.
(*Mainstream student*)

Relationship

Consistent with the literature, the students saw the relationship with their teacher(s) as critical to their capacity to remain engaged in learning. Conversations with students about the role of the teacher in their learning environment were passionate, sophisticated and surprisingly metacognitive in their articulation of the necessary synthesis of learning needs and outcomes. There was no doubt in these students' minds that the relationship with the teacher was critical to their continued social and academic engagement. The following comments are representative of the student perspective of the student-teacher relationship in a supportive school culture:

They're always there. They don't leave us in the lurch in learning.
(*Mainstream student*)

If you have a good relationship with your teachers you are going to learn easier, you're going to understand a lot better. (*Fast Track student*)

It's important that you have a good relationship so if you don't understand something you can approach the teacher and ask a question.
(*Mainstream student*)

The teachers are really open to us. We can really communicate with them. It's not . . . there is a barrier between teacher and student but it's not as rigid as it is in other schools. (*Industry Access student*)

Responsibility

Students' identification of the critical role of "responsibility" was two-fold – increased responsibility for learning given by the teachers, and the subsequent maturity of responsibility taken by the students for their learning. What the students told us that they valued was a learning environment where the teaching went beyond being told what to learn and how to learn, and gave the students some responsibility for their own learning (without taking away the support and safety nets). Students expressed this as being trusted to use the privilege and flexibility of curriculum, assessment, timetable, boundaries of behaviour and study spaces that recognised them as young adults and supported their personal learning journey. They wanted to be active decision-makers in their learning. The following comments illustrate the link students made between responsibility for their learning and their academic engagement:

The more you are involved, the more you feel you belong. (*Industry Access student*)

At first I thought wicked I have all this time off and I didn't do much work but after a while when I saw how badly I was doing I had to pick up my work. (*Mainstream student*)

Not everyone can handle the responsibility but then they learn from their mistakes ...that's the minority here cause the whole environment just kind of carries on ...you get minorities that come in here and think they can abuse that privilege, of you know getting all these free zones and having this respect given to me ...they soon learn by getting in trouble and getting bad marks and people look down on them ...its obvious if someone acts up and you look at them and go..nah. (*Mainstream student*)

They give us the responsibility because on the real life there is no second chance, there is no person behind you telling you to do this ...the good thing is where they give you options and they're behind you a little bit but they let you go like a training leash. (*Industry Access student*)

The capacity to interact with peers and teachers was seen by students as an essential skill for members of a learning community. One student described the need to be able to work comfortably with peers:

You have to be able to work comfortably within a group or else you can't work properly. You're too worried about the other person's personality clashing and not focusing on your work.

Students were equally explicit in describing aspects of their academic engagement, although discussion was far more personalised than the more conceptual depiction of

their social connectedness. For example, although self-efficacy and confidence were identified as key indicators of concern for their academic progress, students also fell into two broad categories of either having clear goals for post-school education, training or employment, or not really being sure what direction they would take beyond school.

Most students in the focus groups could clearly articulate incidents and teachers who helped with their confidence and esteem. For example, one girl said:

School helped me with my confidences because I was pretty shy and couldn't speak up but then one of my teachers made me open up ... she doesn't scream at me but she pushes me.

Although less articulate, one of the boys in the fast Track course described his increased engagement more as an outcome of fear of failure than improved confidence:

I'm doing more better now 'cause if I don't pass my classes I don't graduate.

One student described the challenges of remaining engaged with senior school work within a complex home life:

At home I have my mum's house and my dad's house so I'm constantly moving from one house to another, so it's a bit hard to get a steady environment and study done. That's why I do tutoring at school.

Another student described the lack of challenge in expected work, and the dangers of feeling too confident:

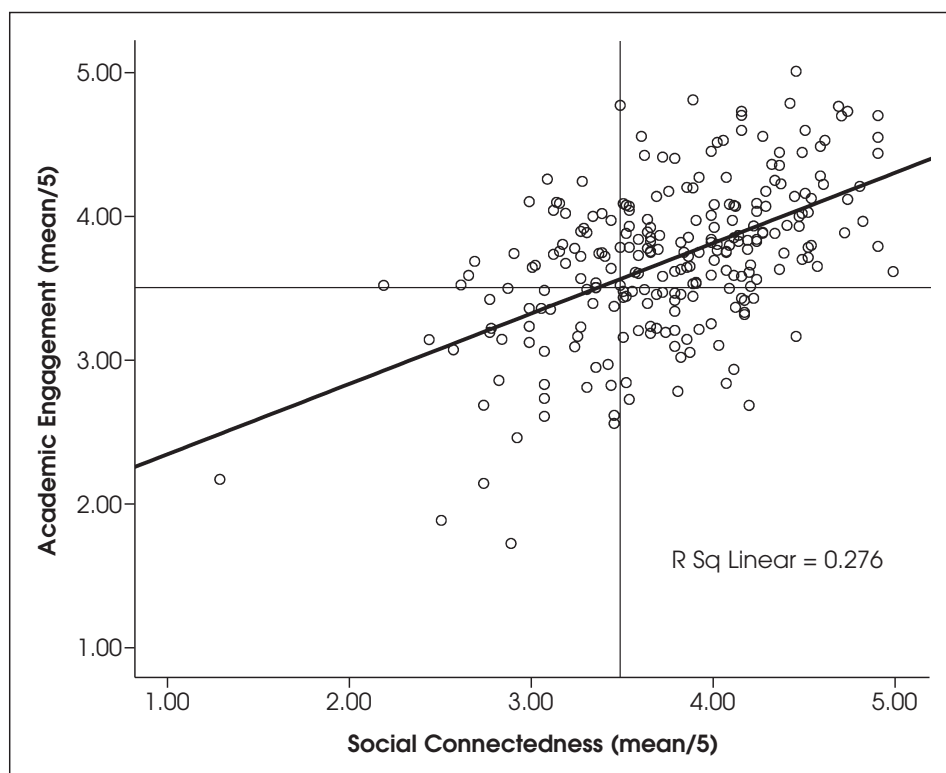
If something is too easy you just put it off and then on the last day you're like "Oh, shit!"

Conclusions

It is evident from our research that students' sense of wellbeing within their senior secondary school learning environment reflects the extent to which it satisfies their social, academic and aspirational needs. Such an environment provides students with a sense of satisfaction and involvement with course offerings, and academic confidence and self-efficacy to achieve positive, aspiration-enhancing outcomes. This is consistent with the conclusions drawn by Hemmings et al. (1998), who noted that the integration of students' academic and social integration impacted on retention to the extent that a student's relatively high social integration would counter the negative retention impact of low academic integration. It is also evident from our research that students' perceptions of wellbeing in their learning environment reflect the quality of

the experience of participating in and completing senior secondary school. As an outcome of our research, this sense of wellbeing can now be measured and considered in terms of academic achievement.

The scatterplot in Figure 1 below shows the significant relationship between the two constructs of social connectedness and academic engagement used to structure this research and measure this relationship ($r=.53$, $p<.001$). It seems that students with a strong sense of social connectedness within their school learning environment also have a strong sense of academic self confidence.



*Note. Mean scores below 3.5 were indicators of concern for academic achievement
 $r=.53$; $p<.001$*

Figure 1: Scatterplot of Social Connectedness and Academic Engagement Scores (n=255)

When considering these data in relation to retention and achievement outcomes for the Year 11 students outlined earlier in the paper, the message was clear: students with a strong sense of social connectedness are more likely to stay at school beyond Year 11. For most students, there was a clear alignment between their strong sense of social connectedness and their academic engagement with their studies. Students with both high levels of social connectedness and academic engagement were in most cases

those achieving high levels of academic success in their chosen program. The optimum outcome for a school would be to have all students indicating a strong sense of social as well as academic engagement in their learning environment (i.e. maximise the number of students in the top right hand quadrant of the scatterplot above). It may take three steps for a school to achieve such an outcome: first, seriously consider the flexibility, choice, relevance, authenticity and rigour of the curriculum offered; second, improve opportunities for the social connectedness of their students; and third, focus on supporting an increased sense of academic engagement (confidence and self-efficacy) of all students.

The implication for schools and systems is evident, but far from easy to implement. The nature of the senior school culture and hence the wellbeing of their senior students, is critical to the quality of the experience of participating in and completing any of the multiple successful outcomes of senior secondary school and training. The dimensions of a quality school culture with the capacity to maximise positive outcomes have been made explicit by the students in this study.

Drawing on the structured NVivo7 analysis of the qualitative data through both axial and selective coding, specific characteristics were identified as representative of student perceptions of the three key dimensions of a supportive senior school culture. These characteristics emerged from the student data in the following way:

- *Respect*: mutual; acceptance; belonging; intellectual challenge; appropriate curriculum.
- *Relationship*: confidence; support; involvement; young adult environment; pedagogy; guidance.
- *Responsibility*: independent learning; balance; flexibility; discipline; opportunities.

These dimensions are summarised in Table 6 below. To complete our identification of features of a senior school culture conducive to student wellbeing, we rephrased the student comments to develop descriptors of how these factors and characteristics might be operationalised from a school and classroom perspective. As Walther (2006, p. 121) posed, we were mindful of the need to develop school cultures that respect the situations of “youth-like dependency and adult autonomy” that co-exist simultaneously for many senior secondary students.

Factor Characteristic	Descriptor
Respect	
Mutual	Teachers and students have mutual respect for each other, their circumstances and endeavours. Genuine equivalence of programs is evident.
Acceptance	The school culture is inclusive and embracing of difference in background, ability, aspirations and experience.
Belonging	Students have a strong sense of identification and belonging to the senior school learning environment.
Intellectual challenge	Academic rigour is expected in all tasks for all programs.
Appropriate curriculum	Students can choose relevant, meaningful and authentic curriculum to suit their needs within and across programs.
Relationship	
Confidence	Students have confidence in their teachers, and related self- confidence in managing their school work.
Support	Teacher support is highly valued, professionally and personally.
Involvement	Students engage in their learning in a culture of involvement.
Young adult environment	The senior school culture reflects expectations, boundaries, relationships and learning opportunities conducive to responsible young adults.
Pedagogy	The learning environment embraces a wide range of pedagogical practices, including ICT.
Guidance	The direction and influence given by members of the school community when advising on subject and program choices, careers and pathways is focused on the student's best interests.
Responsibility	
Independent learning	The learning environment is based on development of independent learners rather than a culture of dependency.
Balance	The challenges and benefits for senior students to balance school work with social, employment and individual time are acknowledged and supported.
Flexibility	The learning environment encompasses sufficient flexibility of pedagogy, curriculum choice, programs, governance structures and support mechanisms to personalise students' transition to post-schooling options.
Discipline	Students are treated with respect when disciplined, through use of natural consequences as opposed to punishment.
Opportunities	Students are expected to take responsibility for managing the opportunities and freedoms within their course structure and timetable.

Table 6: Features of a Senior School Culture Conducive to Student Wellbeing

We found that there is evidence to support the existence of a relationship between senior secondary students' sense of social connectedness in their school learning environment, their sense of academic engagement and their final academic achievement. It is no surprise that the dimensions of a supportive school culture identified by students in this study as conducive to their quality retention and participation are compatible with previous research from both teachers' and students' experiences. For example, Bradley (1992) similarly identified the critical impact of relationships and curriculum in defining a supportive school climate conducive to improved retention. Recent work by Hayes, Mills, Christie and Lingard (2006, p. 22) on productive pedagogies identified similar dimensions (intellectual quality, connectedness, supportive classroom environments) when exploring the impact of the teacher and the school on improving the student

learning experience. Again, it is no surprise to find elements of Hodgson's (2007) identification of the impact of students' experiences of school cultures and support relationships reflected in the student feedback and thus in our operationalised descriptors in Table 6.

Our data confirm the capacity to identify students "of concern" in terms of their sense of wellbeing. It is clear that the level of social and academic engagement of senior students impacts on the quality of their participation and retention. Further research across a broader sample of students and schools would enable an exploration of this relationship in terms of a path between improving students' sense of wellbeing within their school learning environment and improving their academic achievement in a chosen program. The establishment of such a path would lead to increased capacity for schools to support students to remain engaged in their learning or training.

The impact on quality participation and retention and of students' sense of social, academic and aspirational wellbeing within their learning environment should not be taken lightly. Nor should the critical role of curriculum in developing a senior school learning culture based on respect, relationship and responsibility. It is not an easy path forward, but the consequence of failure to address the issue is dire. The warning given by Beavis et al.(2005b) in their survey of 3000 Year 11 and 12 students needs to be heeded:

Failure to establish meaning in the curriculum or to build satisfactory teaching relationships removes the possibility of successful learning which is the most important intrinsic motive for staying on at school. Economic pressures to find work and earn a living may hasten early leaving, but where a positive experience of learning has not been established, resistance to these pressures is often ineffectual. (p. ix)

Endnotes

- ¹ This scale was used with the permission of Adrian Beavis (Beavis, Curtis, & Curtis, 2005a)

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